

Prays peregrina sp. n. (Yponomeutidae) a presumed adventive species in Greater London

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Résumé. *Prays peregrina* sp. n. is described from scattered localities in Greater London. The possible origin of this species is discussed.

Introduction

In the autumn of 2005 two British lepidopterists: Colin Plant and Philip Sterling contacted me about a mystery yponomeutid of which a specimen had been taken in West London. Shortly afterwards a second specimen was reported which appeared to belong to the same species. Over the following months further specimens were reported. I searched through the collections of the Natural History Museum (BMNH) but was unable to find an exact match for the specimens. A male was dissected which seemed to confirm that the species belonged to the genus *Prays*. Pictures of adult and genitalia were circulated to entomologists in Europe and Australia, but none could suggest an identity. Moriuti (1977) described six new species from Japan but it resembles none of these. When a seventh specimen was reported in 2006 I made a further search of the BMNH collections and found that *P. curulis* Meyrick seemed to be the nearest species, a male had been dissected by Moriuti but there were some differences in the genitalia. It therefore seemed necessary to describe the species as new.

A summary of recorded specimens is as follows:

Date	locality	British grid	sex	recorder
15.viii.2003	Parliament Hill	TQ2785	♂	Ray Softly
19.vi.2005	Chelsea Physic Garden	TQ2778	♀	Tim Freed
6.ix.2005	Wood Green	TQ1585	♂	Marcel Ashby
5.x.2005	Greenford	TQ3189	♀	David Howdon
28.vii.2006	Wood Green	TQ1585	♂	Marcel Ashby
6.ix.2006	Orpington	TQ4667	?	Martin Jordan
16.ix.2006	Orpington	TQ4667	?	Martin Jordan
18.x.2006	Barnet	TQ2596	♀	Rachel Terry
24.vi.2007	Wembley	TQ1884	♀	Geoff Geiger
10.vii.2007	Wimbledon	TQ2670	♀	Vlad Proklov
24.viii.2007	Wetlands Centre	TQ2276	♀	Martin Honey
5.ix.2007	Chessington	TQ1864	♂	Jim Porter
8.ix.2007	Wimbledon	TQ2670	♀	Vlad Proklov
14.ix.2007	Sidcup	TQ4772	1♂+1♀	David Macklin
2.x.2007	Wimbledon	TQ2670	♂	Vlad Proklov

The distribution of these records is shown in Fig. 5

Prays peregrina* sp. n.*Figs 1–4**

Material. Holotype: ♀ '5th Oct. 2005 D. Howdon | Melville Ave, Greenford, | Middx.' 'BM genitalia slide No. 31468.' a red circled holotype label and 'Prays peregrina Agassiz det D. Agassiz, 2007. Deposited in BMNH. – Paratypes: 1♂ Alexandra Road, Middlesex, London N8, 5.ix.2005; BM genitalia slide No. 31467, BMNH; 1♂ Parliament Hill, London NW3, 15.viii.2003, R. Softly, coll. C. W. Plant; 1♂ London N8 28.vii.2006, M. Ashby, coll. R. Terry; 1♀ Chelsea Physic Garden, SW, 19.vi.2005, T. H. Freed, coll. T. H. Freed; 1♀ Barnet, 18.x.2006, R. Terry, coll. R. Terry.

Description of the adult (Figs 1–2). Wingspan 14 mm. Head pale grey, labial palpus white, segment 3 longer than segment 2, tuft of white hairs arising from base; antenna just over half wing length, weakly annulate pale fuscous and white; pair of white tufts behind head. Thorax dark fuscous. Forewing white with scattering of dark fuscous dots, dark fuscous mark arising from middle of dorsum in shape of curved triangle, dark fuscous tornal spot, terminal cilia concolorous with adjacent wing. Hindwing uniform pale grey, small hyaline patch above vein CuP near base. Underside of all wings fuscous. Legs white, forelegs fuscous above. Abdomen white.

The species is similar to *Prays curulis* Meyrick, but differs in lacking partial fascia from middle of dorsum, and having more pronounced tornal spot.

Male genitalia (Figs 3, 3a) Socii strong with tips drawn out to a point, gnathos forming an arched rod, valva with sacculus forming a small point, saccus long and slender. Phallus curved with a cluster of 2 large and 3–4 smaller cornuti. Differs from *P. curulis* in the more uniform socii, longer and narrower saccus and the stronger and fewer cornuti in the phallus.

Female genitalia (Fig. 4) Ostium wide, ductus bursae strong and straight, slightly longer than ostial chamber, corpus bursae ovate, signum small sclerotised plate with two prongs.

Distribution. All known specimens from Greater London (Fig. 5). The native range of the species is unknown, suspected to be in Asia, specimens of the closely related *P. curulis*, described by Meyrick (1914), in the Natural History Museum are from northern India and Nepal.

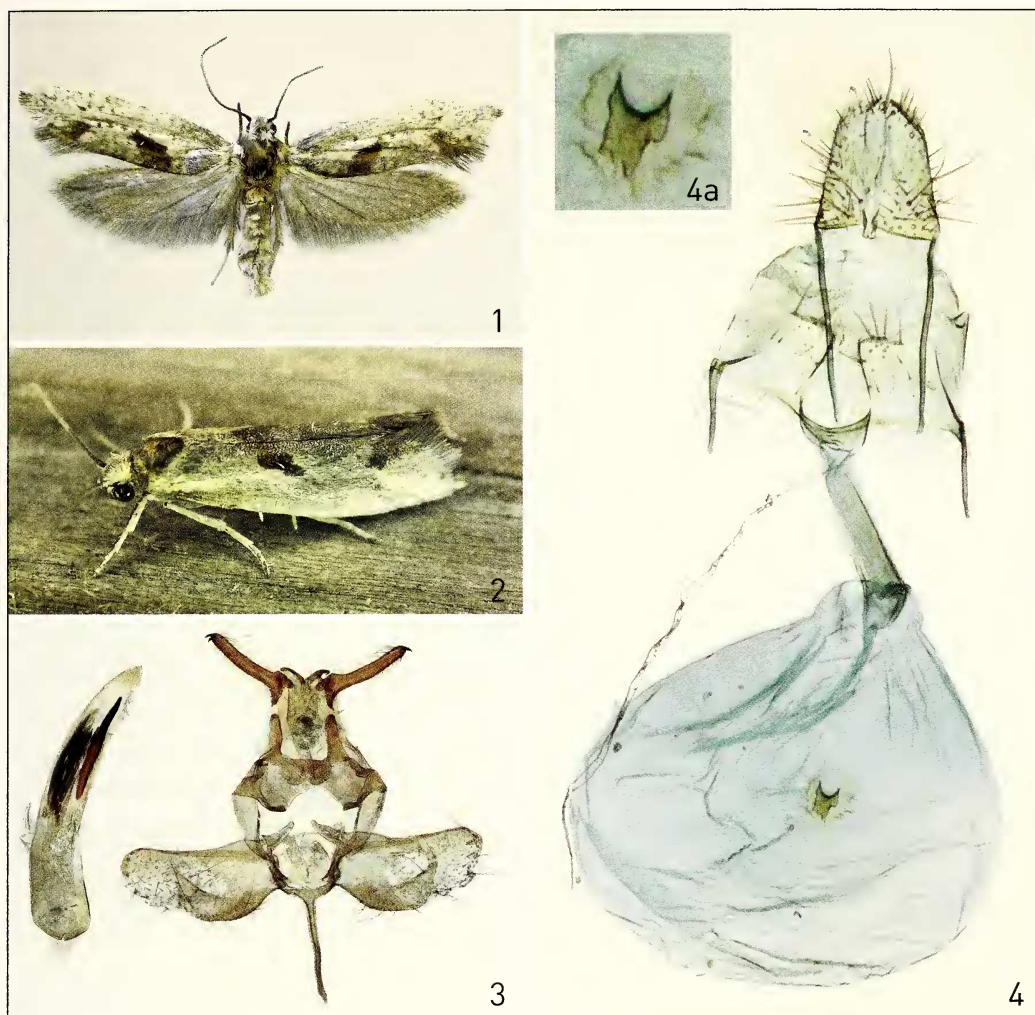
Life History unknown.

Etymology. The name is taken from the Latin word meaning "that comes from foreign parts"

Discussion

The origin of these specimens remains a matter of speculation. Either they must be breeding locally or else emerging from imported plant material or foodstuffs. If the former were the case one would expect a local population to build up, and therefore the scattered nature of the records suggests that they are repeatedly imported. The lack of records from any other city or country is surprising, as well as the fact that there is no mention of such a *Prays* species in the economic literature. It is also puzzling that there are no records prior to 2003.

The genus *Prays* Hübner contains over 40 described species predominantly from the Old World; there are 23 species from Asia, 8 from Australia, 4 from Europe, 3 from Africa, and the remainder from certain oceanic islands or South America. Foodplants used are Oleaceae (*Fraxinus*, *Juglans*, *Ligustrum*, *Olea*), Rutaceae (*Citrus*), Caprifoliaceae



Figs 1–4. 1. Set specimen of *P. peregrina* (photo Rachel Terry). 2. Live specimen of *P. peregrina* (photo Martin Jordan). 3. Male genitalia, with phallus on the left (photo Rachel Terry). 4. Female genitalia, 4a signum enlarged.

(*Viburnum*) and a few other families. Larvae are known to feed on fruits and in shoots of the host plant as well as the leaves. The specimen taken in Chelsea Physic Garden was a female and a spermatophore in the corpus bursae indicated that it had paired with a male, so several specimens must have emerged at about the same time.

It seems most likely that the specimens have been imported as larvae or pupae in some foodstuff from Asia, but this is purely conjecture, the span of dates of capture from June to October suggests either that the species is continuously brooded and repeatedly imported, or it may have become locally established.

Malumphy (2007) listed various arthropod species intercepted on *Citrus hystrix* which has only recently been imported from Indonesia, since this belongs to an appropriate family it should be explored as a possible host plant.

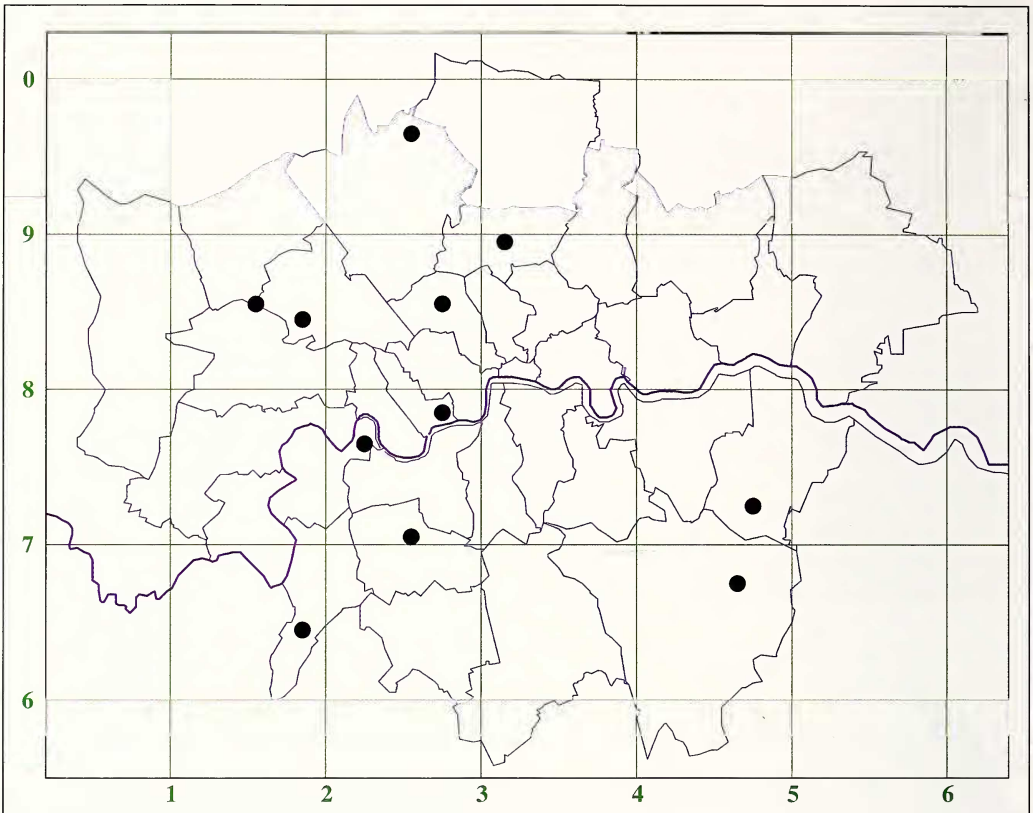


Fig. 5. Map of Greater London showing distribution of records of *P. peregrina* (Dmap).

Acknowledgements

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References

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